

Amendments to the Specification

Please replace the paragraph beginning at page 5, line 12 with the following:

According to the above described configuration, the fluid supplied from the first fluid path 21 flows through a communication portion 313 which is formed of a concave portion 311 provided in the body portion 32 of the valve member 3 to reach the cavity portion 312. The valve member 3 is pressed toward the hollow portion 13 by the pressure of the fluid passed therethrough. At this moment, if the pressure has reached a predetermined pressure, the valve member 3 deforms towards the hollow portion 13, thus producing a gap between the edge portion of the projection portion 32 of the valve 3 and the hollow-portion base portion 133. This gap brings the first fluid path 21 and the hollow portion 13 into communication thereby allowing fluid flow. Further, if the pressure of the fluid from the first fluid path 21 is lowered, the edge portion 34 of the projection portion 32 and the hollow-portion base portion 133 will be brought into contact again due to the resilience of the valve member 3 itself thus closing the passage between the first fluid path 21 and the hollow portion 13. On the other hand, in the fluid control device of the present invention, the fluid will not flow to the side of the first fluid path even when the pressure of the fluid within the hollow portion 13 increases. That is, since the projection portion 32 is provided in the hollow portion 13 and the edge portion 34 of the projection portion [13] 31 is in contact with the hollow-portion base portion 133, when the pressure inside the hollow portion 13 is raised, the projection portion 32 will be pressed at the same time thus increasing the force which keeps the edge portion 34 of the projection portion [13] 31 and the hollow-portion base portion 133 in contact and further ensuring the sealing of the hollow portion 13 and the first fluid path 21.

Please replace the paragraph beginning at page 6, line 26 with the following:

The fluid control device of the present invention is comprised of: for example as shown in Fig. 1, first fluid path 21 placed on the upstream side and connected to the fluid control

device; second fluid path 22 on the downstream side; housing portion 1 located between the first and the second fluid paths and forming a hollow portion 13 with a cross sectional area larger than those of both the fluid paths; and valve member 3 which forms body portion 31 placed in the first fluid path and projection portion 32 projecting into hollow portion 13, and substantially closes the part of the first fluid path 21 communicating with the hollow portion 13 by means of the projection portion 32. As described above, the body portion 31 of the valve member 3 is placed in the first fluid path 21, because making the fluid flow from the first fluid path to flow through the communication portion 313 having a smaller cross sectional area is effective in dampening and thereby reducing the fluid pressure. Moreover, the projection portion 32 is placed to project toward the hollow portion [3] 13 because that is suitable for ensuring the directionality (unidirectional) of the fluid in the fluid control device. And, by this configuration, even if the fluid pressure in the hollow portion 13 is raised, the projection portion 32 will be pressed against the hollow-portion base portion 133 by the pressure, thus preventing the release of the contact between the edge portion 34 of the projection portion 32 and the hollow-portion base portion 133 ensuring sealing capability.

Please replace the paragraph beginning at page 7, line 24 with the following:

The projection portion 32 of the valve member 3, which is placed at the location where the first fluid path 21 and the hollow portion [3] 13 are communicated, is formed on its body-portion side with a hollow cavity portion 312, and thereby can be sufficiently and smoothly applied a fluid pressure to be transferred from the first fluid path 21 to the valve member 3 through the communication portion 313.

Please replace the paragraph beginning at page 10, line 15 with the following:

The above described syringe pump 85 had a syringe size of 20 ml and fed fluid at a flow rate of 0.5 ml/h. The observation of the change in the waveform during blood returning was conducted by performing fast-forwarding of the syringe pump 85 on the lines Y and Z provided

with Umbrella A 86 and by performing flushing on the line X provided with the flow control device 82, and the comparison of the blood pressure waveforms generated by the fast-forwarding of the syringe pump 85 and the flushing of the ~~flush~~ flow control device 82 was conducted by comparing each waveform displayed on Labview 84 while halting displayed images.